

REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-9, 11, 12 and 15-22 are currently being prosecuted. Claim 1 has been amended and claims 15-22 are withdrawn.

The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Rejection under 35 U.S.C. § 103(a)

Claims 1-9 and 11-12 are rejected under 35 U.S.C. 103(a) as unpatentable over Satoi and Fairbairn. This rejection is respectfully traversed.

Claim 1 includes a combination of elements and is directed to a device for forming an alignment layer of a display apparatus that comprises “wherein the drying part is positioned directly and vertically above the printing part, thereby saving time, lowering adsorption of particles to the substrate, and preventing defects in a drying process; wherein a time to receive the substrate in the printing part is different from a time to transfer the substrate on which the alignment layer is printed in the drying part positioned directly and vertically above the printing part; and wherein the substrate received in the printing part and the substrate on which the alignment layer is printed in the drying part are the same substrate”.

These features are supported at least by the non-limiting example shown in Figures 4-6 and the corresponding description in the present specification. For instance, Figure 5 illustrates

the drying part 42 performing a drying process is positioned directly and vertically above the printing part 40 performing a printing process of the alignment layer on the substrate 10. The alignment layer is printed on the substrate 10 in the printing part 30, and then the alignment layer of the substrate 10 is dried in drying part 40.

Accordingly, a time to receive the substrate 10 in the printing part 30 is different from a time to transfer the substrate 10 on which the alignment layer is printed in the drying part 40 positioned directly and vertically above the printing part 30. Also, the substrate 10 received in the printing part 30 and the substrate 10 on which the alignment layer is printed in the drying part 40 are the same substrate.

Therefore, by the claimed features, the present invention has advantages of minimizing process time and lowering the probability of adsorption of particles to the substrate. Moreover, as explained in paragraph [0047] of the present specification, the claimed invention has advantages of occupying a small space and having great drying efficiency. Especially, these advantages can be achieved by drying an alignment layer printed on the substrate uniformly, and consequently minimizing a time-loss between the printing process and the drying process. This minimization of the time-loss between the printing process and the drying process is critical for preventing defects such as mura resulted from non-uniform drying an alignment layer printed on the substrate.

However, neither of Satoi nor Fairbairn does teach or suggest the above-mentioned technical features and their advantages of the present application as explained above. Particularly, Satoi fails to teach or suggest the claimed features that the drying part is positioned directly and vertically above the printing part. Also, Fairbairn remains the claimed features. Instead,

Fairbairn merely discloses stacking process modules (first and second processing chambers A1, A2 of processing chamber 20). At least two wafers of Fairbairn are simultaneously moved from the loadlock chamber 10 or 15 to the first and second processing chambers A1 and A2 positioned horizontally with the loadlock chamber 10 or 15, as disclosed in claims 2, 15, 24, 29 and 40 of Fairbairn. As a result, in Fairbairn, a time to receive the substrate in the first processing chamber is the same as a time to receive the substrate in the second processing chamber positioned vertically above the first processing chamber. Also, the substrate received in the first processing chamber A1 and the substrate received in the second processing chamber A2 are different from each other in the Fairbairn reference.

Therefore, the claimed invention is not rendered obvious over the applied art singly or in combination. Accordingly, it is respectfully submitted that independent claim 1 and each of the claims depending therefrom are allowable.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned (703) 205-

8000, in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

Esther H. Chong

Registration No.: 40,953

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant